

WHAT IS CLAIMED IS:

1. An electronic control apparatus comprising:  
a plurality of power source circuits providing a plurality of power sources of a plurality of different voltages;  
and

a microcomputer,

wherein any one of the plurality of power sources  
is used as a power source of the microcomputer, and

wherein the microcomputer is reset when it is detected that any one of the plurality of power sources is not set to a voltage in respective specified ranges by checking whether the plurality of power sources are respectively set to the voltages in the specified ranges.

2. An electronic control apparatus as in claim 1,  
wherein:

the microcomputer has a CPU, a peripheral circuit, an analog-digital converting unit, a reset control unit and an oscillation circuit;

the power source circuits have a first power output circuit outputting a first voltage that is applied to the peripheral circuit and the analog-digital converting unit, and a second power output circuit outputting a second voltage that is lower than the first voltage and applied to the reset control unit, the oscillation circuit and the CPU;

a first voltage abnormality detecting circuit is provided for detecting that the first voltage is lower than

a specified voltage thereof;

a second voltage abnormality detecting circuit is provided for detecting that the second voltage is lower than a specified voltage; and

the microcomputer is reset when any one of the first voltage and the second voltage is detected to be lower than the first specified voltage and the second specified voltage by any one of the first and second abnormality detecting circuits.

3. An electronic control apparatus as in claim 2, wherein:

a first current abnormality detecting unit is provided for detecting that a current flowing into the first power output circuit is outside a first specified range; and

a second current abnormality detecting unit is provided for detecting that a current flowing into the second power output circuit is outside a second specified range,

wherein the microcomputer is reset when any one of the currents flowing into the first power output circuit and the second power output circuit is detected as being outside the first specified range and the second specified range by any one of the first current abnormality detecting circuit and the second current abnormality detecting circuit.

4. An electronic control apparatus comprising:  
a plurality of power source circuits providing a

plurality of power sources of a plurality of different voltages;  
and

a microcomputer including a reset control unit,  
wherein any one of the plurality of power sources  
is used as a power source of the microcomputer, and

wherein a power source for the reset control unit  
in the microcomputer among the plurality of power sources is  
driven to rise earlier than other power sources.

5. An electronic control apparatus as in claim 4,  
wherein:

the power source of the reset control unit in the  
microcomputer is driven to fall later than the other power  
sources.

6. An electronic control apparatus comprising:  
a plurality of power source circuits providing a  
plurality of power sources of a plurality of different voltages;  
a microcomputer; and

detecting means for detecting that the plurality of  
the power sources are set to respective specified voltages when  
the plurality of power sources are driven,

wherein any one of the plurality of power sources  
is used as the power source of the microcomputer, and

wherein the microcomputer is reset when it is  
detected that any one of the power sources reaches the  
respective specified voltages.